



Australian Government

PMBPROD270 Operate injection blow moulding equipment

Release: 1

PMBPROD270 Operate injection blow moulding equipment

Modification History

Release 1. Supersedes and is equivalent to PMBPROD270B Operate injection blow moulding equipment

Application

This unit of competency covers the skills and knowledge required to operate injection blow moulding equipment and ancillary equipment that is integral to the process.

This unit of competency applies to operators who are required to carry out pre-start, start and stop procedures; monitor and adjust the equipment; maintain feed; and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Check work requirements

- 1.1 Identify work requirements from procedures
- 1.2 Identify product, materials and equipment requirements for job
- 1.3 Recognise hazards and take appropriate action
- 1.4 Check with supervisor/appropriate person if

requirements are not in accordance with usual practice

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| 2 | Conduct pre-start checks as required | <ul style="list-style-type: none">2.1 Check safety gates and guards are in position and working2.2 Check raw materials are correct2.3 Undertake other pre-start checks to procedures2.4 Start up equipment safely and 'dry run' to warm hydraulics and components to operating temperature before production, as required |
| 3 | Operate equipment to procedures | <ul style="list-style-type: none">3.1 Check condition of equipment and introduce raw materials as required3.2 Check product/process is within required limits3.3 Collect products and store as required3.4 Check product is in specification/to required quality standard3.5 Maintain supply of materials as required3.6 Complete logs and records when required3.7 Collect and reprocess/discard scrap/trim and other materials3.8 Clean up equipment and work area3.9 Pause equipment, or stop equipment in an emergency, as required |
| 4 | Respond to routine problems to procedures | <ul style="list-style-type: none">4.1 Recognise known faults that occur during the operation4.2 Identify and take action on causes of routine faults4.3 Log problems as required4.4 Identify non-routine process and quality problems and take appropriate action |

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes

- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include:

- injection moulding machines which may be electrical, mechanical, electromechanical or hydraulic
- components of injection moulding machines, including material supply systems, plastification unit, dies/tools and injection blow units
- ancillary equipment that is integral to the process, including one or more of:
 - chillers
 - die heating equipment
 - hopper driers
 - mixing hoppers
 - dehumidifying driers
 - air compressors
 - dosing machines
 - colour blending equipment
 - conveyors.

Additional tools and equipment will be selected as required from:

- hand tools used in the process
- material loading equipment used for loading of raw materials
- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- rotational equipment or vibration
- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards

- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- equipment malfunction
- variations in temperature, pressure, speed and inflation
- variations in materials
- contamination of materials
- mould damage
- mould/tooling problems
- product problems, such as:
 - wall thinning
 - holes
 - poor surface finish
 - warping
 - poor colour dispersion
 - ejection damage
 - colour contamination
 - black spots.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>